

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A protein profiling system for identifying a protein biomarker characteristic of ~~a tumor~~ at least one specimen cell, ~~comprising~~ consisting essentially of:

a protein fractionation unit that separates a protein content of at least two ~~tissue or specimen~~ samples from a ~~subject~~ into a plurality of protein subgroups, wherein at least one of said samples contains ~~only normal~~ reference cells and at least one of said samples contains at least one ~~tumor~~ specimen cell;

a mass spectrometer that independently performs mass spectroscopy on each of said plurality of protein subgroups from said ~~subject's~~ samples, and outputs mass spectra subgroup data for each; and

a protein data processing unit that analyzes said mass spectra subgroup data to create a protein profile for each of said ~~tissue or specimen~~ samples, and identifies at least one protein biomarker characteristic of said ~~tumor~~ at least one specimen cell based on a comparison of said protein profile of said sample containing at least one ~~tumor~~

specimen cell with said protein profile of said sample containing ~~only normal~~ reference cells; and

~~a database that stores said protein profile and said identified protein biomarker characteristic of said tumor cell.~~

2-4. (Cancelled)

5. (Previously Presented) The system of claim 1, wherein the protein data processing unit uses an artificial neural network to identify said protein biomarkers.

6. (Currently Amended) The system of claim 1, wherein the protein data processing unit uses a peak analysis ~~techniques~~ technique to identify protein biomarkers.

7-10. (Cancelled)

11. (Previously Presented) The system of claim 1, wherein said protein profile comprises a comprehensive protein profile.

12-17. (Cancelled)

18. (Withdrawn; Previously Presented) A protein biomarker identified by the system of claim 1.

19. (Cancelled)